Dairy Situation

Economics, Statistics, and Cooperatives Service

U.S. Department of Agriculture

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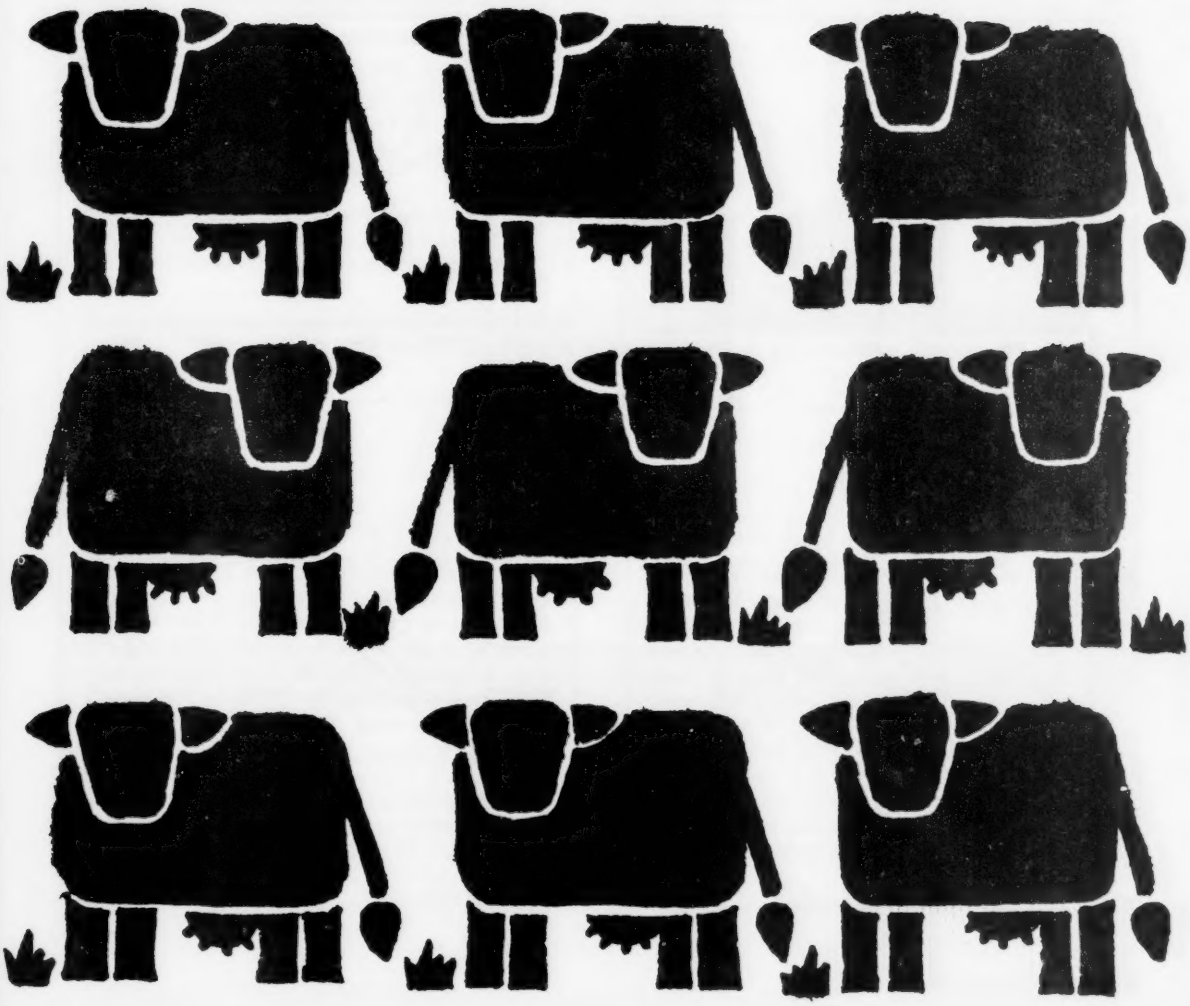


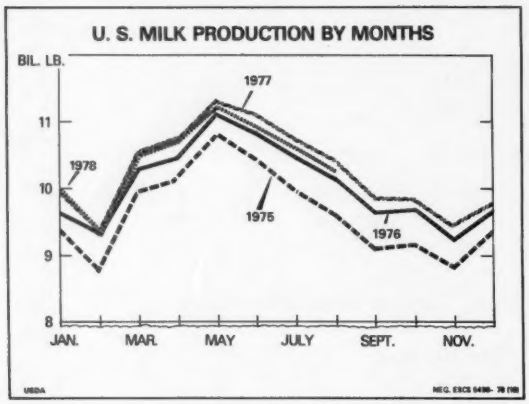
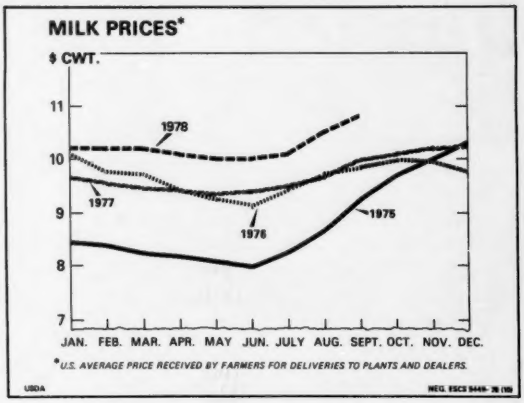


Figure 1



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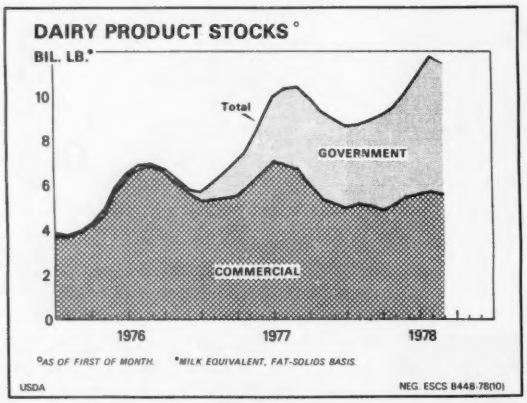

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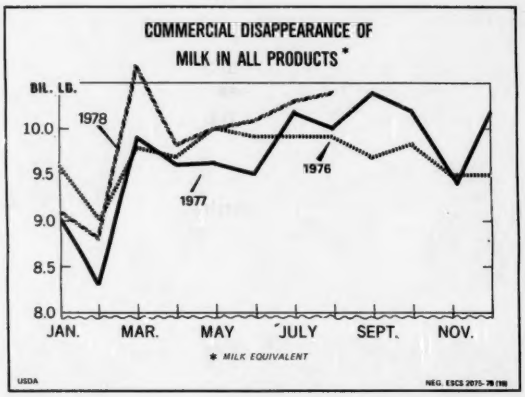

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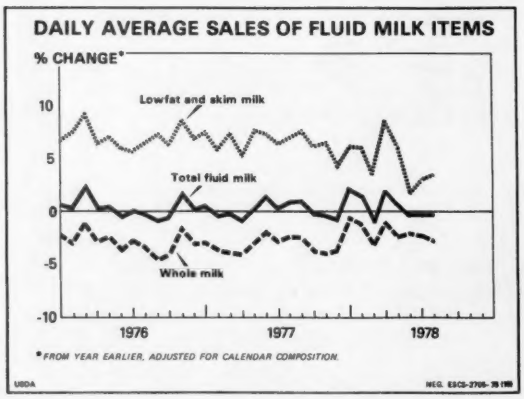

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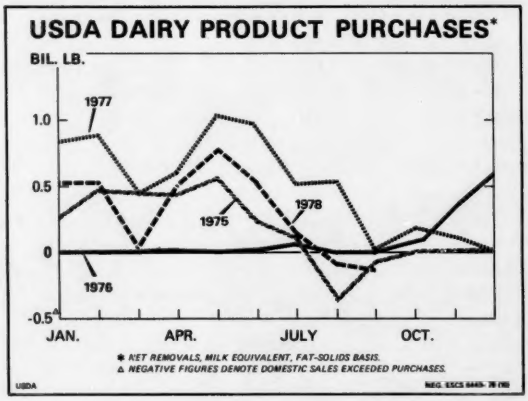

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SUMMARY

As a result of expected lower milk output and strong demand, combined with current low commercial stocks, wholesale dairy product prices probably will remain above the new support purchase prices until at least yearend. Some further rises are possible, especially for cheese. Even without further wholesale price increases, farm milk prices and retail dairy prices will rise more than seasonally in coming months. However, large USDA stocks of butter and nonfat dry milk will prevent price jumps like those triggered by the tight market conditions of late 1973 and 1975.

In sharp contrast to the large surplus which existed for about 2 years, tightening supply-demand conditions brought wholesale butter and cheese prices up rapidly in late July and early August. Farm milk prices and retail dairy prices are now starting to rise in response to the higher wholesale prices.

In coming months, year-to-year gains in commercial use of milk and dairy products probably will slow greatly from the robust pace of the first 8 months of 1978. However, commercial use of dairy products is expected to remain brisk, since retail

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dairy prices (even with the substantial seasonal rise anticipated) probably will stay favorable relative to both consumer incomes and prices of other foods, particularly meat.

The apparent readjustment in milk output following the sharp boosts of the preceding 2 years probably will continue this fall and milk production is expected to remain under a year earlier during the rest of 1978.

Milk output in August was down more than 1 percent from last year as declines in milk cow numbers continued to be sharpened by higher cull cow prices and improved economic alternatives, while output per cow held close to a year earlier. The major uncertainty in the outlook for milk through mid-1979 is how long the current readjustment phase will last and when the expected improved income conditions will start to bolster output again. Pressures for herd culling probably will stay strong this fall and early next year but the combination of much higher milk prices and continued low feed prices may bring a resumption of expanding output per cow by early 1979. After running below a year ago during the rest of 1978, milk production probably will move considerably closer to, and possibly above, levels of early 1978.

By early October, wholesale butter and cheese prices were up about a tenth since early spring as American cheese prices were up about a dime per pound while butter prices had risen about 11 cents a pound. Purchases from USDA stocks at the resale price prior to October 1 limited increases in butter prices. Much less dramatically, wholesale prices of dry products have edged upward since spring.

Farmers received an average $10.80 per 100 pounds of milk in September, up 8 percent from both a year earlier and the spring low. Manufacturing grade milk prices were well above the April-September support price but about a dime below the support price which became effective on October 1. While a large proportion of the expected seasonal rise in manufacturing grade milk prices has already occurred, the average price for all milk will rise further in coming months, as the higher prices for manufacturing grade milk are reflected in prices of milk for fluid use. Farm milk prices this autumn likely will average more than a tenth above a year ago.

The support price for manufacturing grade milk in the 1978/79 marketing year will be the legal minimum of 80 percent of parity or $9.64 for milk with 3.5 percent milkfat ($9.87 per 100 pounds at average fat test). This price must be adjusted on April 1 to reflect the estimated change in the index of prices paid by farmers.

Cash receipts from dairying in 1978 could exceed $12½ billion, up from $11.8 billion in 1977. Thus far in 1978, the net income picture for dairymen has just about kept pace with the relatively favorable 1977 conditions but could brighten further this autumn and during the first half of 1979—if farm milk prices stay strong.

Retail dairy prices were about 6 percent above a year ago in August, still considerably less than the rise in prices of all food products. Prices of manufactured dairy products have started to rise in response to the higher wholesale levels and retail fluid milk prices will follow in coming months.

Supplies of milk available for manufacturing this summer were well below levels of a year earlier and were even slightly below 2 years ago. From this reduced supply, cheese producers have drawn more milk than last year, leaving sharply reduced butter-powder output. This pattern probably will continue in coming months as American cheese producers attempt to meet expected strong sales with only a limited seasonal drawdown of stocks.

Commercial use of milk and dairy products in July-August was still up almost 3 percent from a year ago. If, as expected, sales during September-December match or slightly exceed last year's levels, total commercial use in 1978 would be 2½ to 3 percent above the previous record.

Industry holdings of dairy products remained low on September 1, as stocks of both milkfat and solids-not-fat were down substantially from last year. The low stocks of American cheese, in particular, will provide strength in wholesale prices in coming months.

USDA purchases of butter and cheese under the price support program ceased this summer and small amounts were sold back to the industry in August-September. For the marketing year just concluded, the Commodity Credit Corporation removed from the commercial market about 3 percent of the market supply of both milkfat and milk solids-not-fat, roughly half the large removals of a year earlier.

Imports of cheese and other dairy products in July-August were larger than a year ago. Commercial dairy exports were smaller this summer but food-aid exports were up, as were shipments to U.S. territories.

Milk production in the European Community (EC) was higher this summer. EC intervention stocks of butter climbed above a year ago but nonfat dry milk stocks have been held down by subsidized use in animal feed. Elsewhere, dairy surpluses have been brought fairly well under control.

DAIRY SITUATION

SITUATION AND OUTLOOK

PRODUCTION

Milk Output Well Below 1977

After the relatively late flush season pushed milk output to within 1 percent of a year ago in June-July, milk output posted a more-than-1-percent drop in August. Persistent weakness in output per cow, along with continued larger declines in cow numbers, shaped the decline.

U.S. milk production

Month	1977	1978	Change
	Million pounds		*Percent*
January	9,914	9,988	+0.7
February	9,337	9,341	0
March	10,586	10,528	-0.5
April	10,743	10,686	-0.5
May	11,373	11,219	-1.4
June	11,021	10,928	-0.8
July	10,693	10,598	-0.9
August	10,397	10,259	-1.3
September	9,850		
October	9,844		
November	9,429		
December	9,770		
Total	122,957		

Declines in milk cow numbers from a year earlier have been remarkably stable thus far in 1978—ranging only from 1.0 percent to 1.2 percent. However, this was the largest sustained decline since early 1974. Higher cull cow prices (up $12 per 100 pounds from August 1977) and improved off-farm employment opportunities probably were important factors in the larger declines.

Output per cow has held fairly close to year-earlier levels since late winter—even though milk-feed price relationships have consistently been better than last year's favorable readings. The leveling in production per cow which occurred in most regions (more than half of the States reporting monthly failed to post higher levels than in August 1977) tends to eliminate regional weather or feeding practices as a primary explanation. It may be that the high 1977 levels of average output per cow represented an overreaction to economic conditions and this year's more typical management practices resulted in merely holding last year's gains.

Fewer than a third of the reporting States produced more milk in August than a year ago. A slight rise in the Northeast and a moderate increase in the Mountain States were the only gains on a regional basis, as parts of the Midwest and the South had substantially lower output. Of the 5 major dairy States, New York had significantly larger output, Pennsylvania's output was about the same, and Minnesota, California, and Wisconsin had less production.

Milk cows and replacements, 1975-78

Date	Milk cows	Replacement heifers, 500 pounds and over	
		Number	Per 100 cows
	1,000		*Number*
1975			
January 1	11,220	4,087	36.4
July 1	11,148	3,924	35.2
1976			
January 1	11,087	3,958	35.7
July 1	11,058	3,942	35.6
1977			
January 1	11,035	3,888	35.2
July 1	10,996	4,005	36.4
1978			
January 1	10,930	3,896	35.6
July 1	10,847	3,938	36.3

Production Declines To Ease in Early 1979

If both milk production and output per cow are going through a readjustment phase after the jumps of the preceding 2 years (as now appears likely), the outlook for the rest of 1978 and the first half of 1979 is rather complex. If this readjustment is largely completed, the generally favorable conditions for milk production would be expected to start output expanding once again. On the other hand, production could remain weak in spite of these improved conditions if further adjustment remains to be made.

Farm milk prices during the rest of 1978 and the first half of 1979 probably will average about a tenth higher than a year earlier. Combined with feed prices that are expected to be held to low levels by prospective bumper harvests, this would lead to much improved milk-feed price relationships. This could provide stimulus for heavier concentrate feeding and a resumption of substantial increases in output per cow next year.

The favorable feeding relationships probably will tend to moderate declines in milk cow numbers. However, pressures for substantial declines will remain strong. Slaughter cow prices probably will stay high next year and off-farm employment opportunities could remain relatively good. In addition, beef cow-calf operations could be an attractive alternative for some Midwestern dairymen for the first time in years.

Utility cow prices, Omaha

Month	1976	1977	1978
	Dollars per cwt.		
January	23.26	22.95	27.59
February	25.90	23.88	29.45
March	27.45	26.67	32.44
April	30.72	27.63	36.94
May	30.24	26.57	39.21
June	27.47	25.64	37.61
July	25.80	25.23	38.09
August	25.10	25.38	37.85
September	22.90	26.12	39.75
October	22.72	24.89	
November	20.59	23.80	
December	21.60	25.02	
Average	25.31	25.32	

Milk production this fall may continue to trail the very strong output of late 1977. By early 1979, output probably will be considerably closer to the weakening levels of a year earlier. It now appears likely that first half 1979 milk production will total fairly close to a year earlier, possibly slightly above. However, a slight decline or a substantial increase are both quite possible.

Feed Prices Remain Relatively Low

The prospect of record-large corn and soybean harvests have kept concentrate feed prices moderate, although prices recently have been higher than the very low levels of a year ago. By early October, No. 2 corn at Chicago was quoted around $2.20 per bushel, up about 40 cents from a year earlier, while soybean meal at Decatur was $165-$170 per ton, up about $35. Prices of both corn and soybean meal have declined since spring.

The price of 16-percent dairy ration averaged $137 per ton in September, down $3 from the June peak but up $9 from a year ago.

As of September 1, both the corn and soybean crops were forecast at record levels this year. The corn crop would be up 7 percent from last year's record 6.4 billion bushels, reflecting prospects for a record-high average yield. The soybean harvest was forecast about 3 percent above last year's 1.7 billion bushels. The size of both crops will depend on harvest conditions in coming weeks. If realized, these bumper harvests promise continued moderate feed prices, although the expected strong demand for soybeans will provide some firmness in soybean meal prices.

On the roughage side, alfalfa hay output was forecast on August 1 to be up 5 percent from a year earlier and a new record. Large increases were anticipated in Minnesota, New York, and Pennsylvania but small declines were expected in Wisconsin and California.

Two consecutive large hay crops have resulted in much lower hay prices. Alfalfa hay prices in September were down about $2 per ton from a year ago, and were the lowest on that date in 5 years.

Pasture conditions have been fairly good this season in major dairy areas. On September 1, Midwestern dairy areas generally had better than average conditions while conditions in the Northeast were average or slightly below average.

Milk-feed price ratio[1]

Month	1976	1977	1978
	Pounds		
January	1.65	1.51	1.69
February	1.58	1.46	1.70
March	1.58	1.45	1.68
April	1.53	1.42	1.62
May	1.49	1.40	1.60
June	1.43	1.43	1.59
July	1.44	1.52	1.64
August	1.50	1.65	1.76
September	1.51	1.76	1.81
October	1.56	1.79	
November	1.60	1.76	
December	1.55	1.72	
Average	1.53	1.57	

[1] Pounds of concentrate ration equal in value to 1 pound of milk.

With milk prices much higher than a year ago and feed prices only somewhat above last year's very low levels, milk-feed price relationships were quite favorable in September (figure 7). The milk-feed price ratio exceeded 1.8 for the first September ever, while the difference in value between 100 pounds each of milk and concentrate ration stood at $4.83, up more than a tenth from a year ago. With the expected strong milk prices and low feed prices, milk-feed price relationships probably will stay quite favorable through mid-1979.

PRICES AND INCOME

Wholesale Prices Up

Wholesale butter and cheese prices rose sharply in late July and early August as the tightening supply-demand balance became apparent. By early October, butter prices in Chicago had risen about

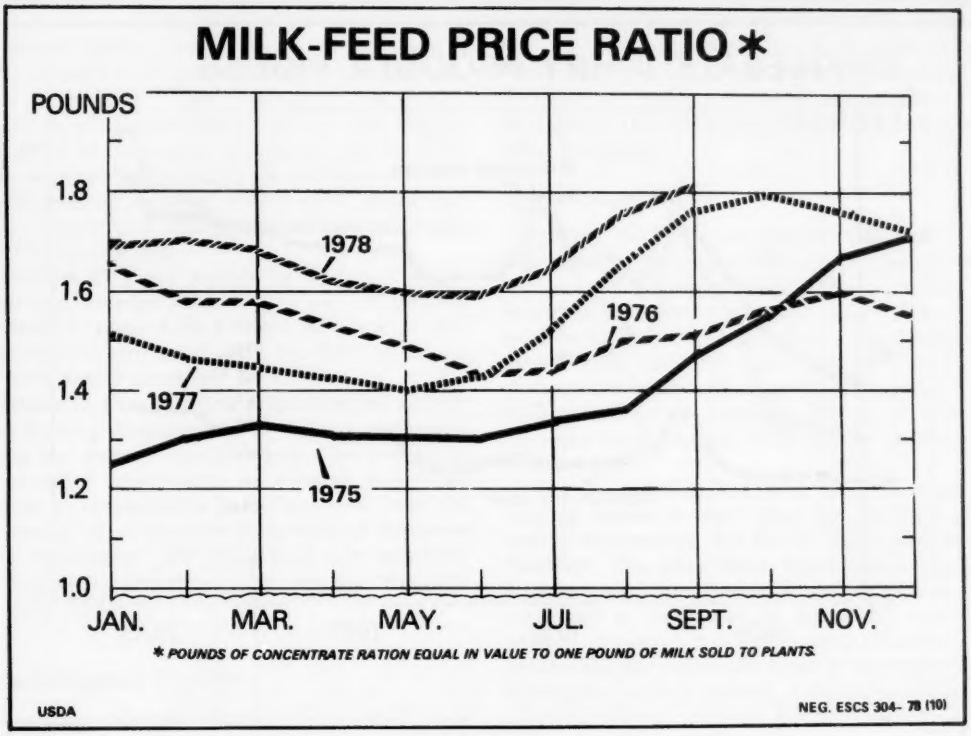


Figure 7

11 cents a pound while American cheese prices had risen about a dime per pound (figure 8).

Dry product prices have also strengthened since spring. Nonfat dry milk prices rose almost 3 cents in early September to about 74 cents per pound (high heat, Central States production area), partially in anticipation of the higher support price on October 1 and partially in response to the sharp production declines. Edible dry whey prices by early October had also risen about 2 cents per pound from the spring low, while dry buttermilk prices were almost 7 cents above early May.

The combination of lower milk production, brisk commercial use, and low commercial stocks was responsible for the summer increases in butter and cheese prices. This combination probably will hold these prices above the new support purchase prices until at least yearend. Wholesale American cheese prices will be at the level necessary to attract enough milk into cheese output to meet current sales with a slower-than-normal stock drawdown. If milk output and commercial use materialize as expected, small price increases are quite possible in coming months.

The October 1 increase in the Commodity Credit Corporation (CCC) sellback price for butter will allow further butter price rises in coming months. However, such increases are by no means assured. Butter prices in coming months will be very sensitive to changes in the overall supply-demand balance and wholesale cheese and nonfat dry milk prices. Some further rises may occur as the peak holiday demand period approaches if butter sales hold.

Like butter prices, nonfat dry milk prices will be very sensitive to the quantities of milk available after meeting the demand for milk in cheese production. In coming months, wholesale powder prices probably will hover close to or slightly above the new support purchase price. However, prices could rise substantially if users continue building inventories—but these higher prices would be unlikely to hold for very long.

This year's higher dry whey prices resulted from demand outstripping increases in output. If demand remains strong, whey product prices probably will continue to rise slowly, but this year's expanded cheese output and higher utiliza-

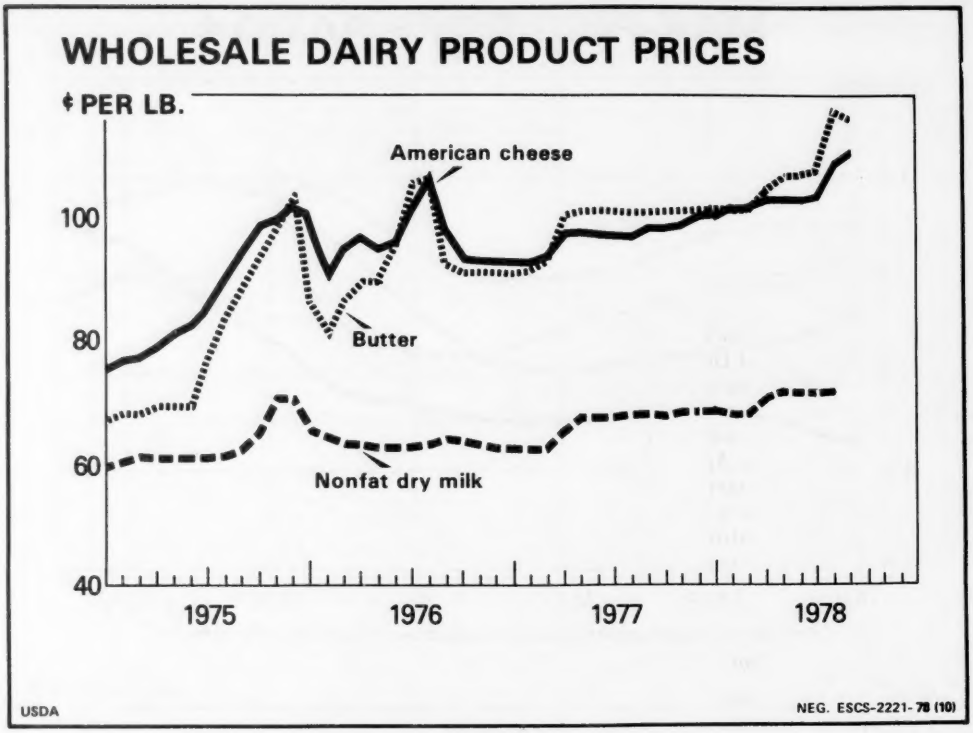


Figure 8

tion of liquid whey likely will keep dry whey prices below last December's 19-cent peak (non-hygroscopic, Central States production area).

Evaporated milk sold for about $16.26 per case in September, up $1 from a year ago. Wholesale ice cream prices were 7 percent higher than a year earlier in August. Prices of both these products may edge upward in coming months.

The Bureau of Labor Statistics (BLS) index of wholesale dairy prices stood at 190.8 (1967=100) in August, up 9 percent from a year ago and 3 percent from May. Increases in wholesale prices of fluid milk products and any further rises in manufactured product prices will push this index higher in coming months.

Farm Milk Prices Rising

Farm milk prices have begun to reflect the higher wholesale dairy product prices. Manufacturing grade milk prices averaged $9.74 per 100 pounds in September, up 10 percent from a year earlier and 6 percent from the June seasonal low. After adjusting for fat test, the September level was 34 cents above the support price for April-September but a dime below the support price which became effective on October 1. Seasonal factors (including rising fat test and intensified competition) plus possible further increases in wholesale prices will push manufacturing grade milk prices higher in coming months but a large

Milk prices received by farmers

Month	All sold to plants			Manufacturing grade		
	1976	1977	1978	1976	1977	1978
	Dollars per 100 pounds					
January	10.10	9.65	10.20	9.04	8.48	9.12
February	9.76	9.53	10.20	8.42	8.41	9.18
March	9.75	9.45	10.20	8.49	8.46	9.23
April	9.40	9.44	10.10	8.45	8.66	9.28
May	9.25	9.37	10.00	8.33	8.62	9.27
June	9.14	9.40	10.00	8.32	8.56	9.23
July	9.43	9.49	10.10	8.62	8.56	9.26
August	9.70	9.66	10.50	8.89	8.64	9.58
September	9.84	9.97	10.80	8.65	8.84	9.74
October	9.96	10.10		8.54	9.02	
November	9.89	10.20		8.54	9.11	
December	9.72	10.20		8.53	9.19	
Average	9.66	9.72		8.56	8.71	

proportion of the total seasonal rise has already occurred.

Farmers received an average $10.80 per 100 pounds of milk in September, up 8 percent from both a year earlier and the spring low. Since increases in wholesale product prices were largely not reflected in September prices of milk for fluid use, the average price of all milk will rise substantially in coming months. Farm milk prices this autumn likely will average more than a tenth higher than a year ago.

Minimum Class I prices in Federal order markets will average about $11.78 per 100 pounds in October, up more than a dollar from a year earlier. Minimum prices of milk for fluid use have risen every month since last December.

Increases in Class I prices announced by cooperatives during August-October have generally exceeded the increase of 42 cents per 100 pounds in Federal order minimums. As a result, over-order payments to cooperatives have increased from the 25-35 cent level of the first 8 months of the year. During September, the estimated average over-order payment reached 50 cents for the first time since early 1976.

80-Percent Support Price Set

The support price for manufacturing grade milk for the marketing year which began on October 1 was set at 80 percent of parity ($9.87 per 100 pounds), the legal minimum under the Food and Agriculture Act of 1977 (tables 1 and 3). The equivalent price for milk containing 3.5 percent milk fat is $9.64. While the provision requiring an 80-percent minimum will expire next March, the provision requiring semi-annual adjustment will remain in effect. The minimum level on April 1 will be the $9.87 price, adjusted to reflect the estimated change in the index of prices paid by farmers. However, the minimum level probably will be somewhat less than 80 percent of the April 1 parity equivalent price, since the January changes in the adjusted base price and the ratio of manufacturing grade milk prices to all milk prices (both tend to push the parity equivalent price upward) are not to be reflected in the adjustment. Last year, the increase in the prices paid index accounted for about three-fourths of the rise in the parity equivalent price between October 1 and April 1.

In order to effect a support price of $9.87 per 100 pounds of manufacturing grade milk, the support purchase price for butter was raised 4¾ cents per pound to 113½ cents in New York (111.3 cents in Chicago) while the purchase price for nonfat dry milk was raised 2¾ cents per pound to 73¾ cents (table 2). The increase in the milk price was split about evenly between the 2 products. The support purchase prices for Cheddar cheese were raised 2¾ cents to 106 cents per pound for 40-pound blocks and 103 cents for barrel cheese. A value of nonfat whey solids of 15 cents per 100 pounds of milk (reflecting higher whey product prices) was included in the calculation of the support purchase price for cheese.

Cash Receipts Higher

During the third quarter of 1978, cash receipts from dairying probably were about 6 percent above a year ago, as higher milk prices outweighed the somewhat smaller amount of milk marketed. The year-to-year rise this summer was similar to the rise during the first half of 1978. The autumn increase probably will be somewhat larger if farm milk prices rise as expected. For all of 1978, cash receipts could exceed $12½ billion, up from $11.8 billion in 1977.

The index of prices paid for production items was up almost a tenth from the summer of 1977, easily surpassing the rise in dairy cash receipts. However, this price index was sharply boosted by higher prices for feeder livestock (which do not constitute a major cost for dairymen) and the net income picture probably was similar to the relatively favorable situation a year ago. If farm milk prices stay strong, income conditions for dairymen may improve further this autumn and during the first half of 1979.

Retail Price Increases To Pick Up

Retail dairy prices have begun to reflect the higher wholesale prices. The BLS index of retail dairy prices stood at 186.1 (1967=100) in August, up about 6 percent from last year and up almost 4 percent since March (figure 9). Meanwhile, the index of retail prices of all food was about a tenth above a year earlier. Seasonal increases in retail

Retail dairy product prices

Item	Index base	Aug. 1977[1]	Dec. 1977	Mar. 1978	Aug. 1978
Consumer Price Index[2]	1967=100	183.3	186.1	189.8	197.7
All food[2]	1967=100	195.2	196.3	204.2	215.4
All dairy products[2]	1967=100	175.1	176.9	179.3	186.1
Fluid milk and cream	12/77=100	---	100.0	101.4	105.1
Whole milk	1967=100	162.9	163.7	166.3	172.1
Other	12/77=100	---	100.0	100.7	105.1
Manufactured dairy products	12/77=100	---	100.0	101.3	105.3
Butter	1967=100	164.4	167.8	170.3	180.7
Cheese	12/77=100	---	100.0	101.3	104.8
Frozen desserts	12/77=100	---	100.0	100.9	105.5
Other	12/77=100	---	100.0	102.1	105.1

[1] May not be completely comparable. [2] For all urban consumers starting January 1978.

Table 1--Manufacturing milk: Comparisons of announced support prices and U.S. average market prices paid to producers, marketing years, 1949-78

Marketing Year beginning in: 1/	Date effective 2/	Manufacturing milk				
		Support level		Average market level		
		Percentage of parity equivalent 3/	Price per 100 pounds	Price per 100 pounds	As a percentage of parity equivalent	
					In month prior to marketing year	Average during marketing year
		Percent	Dollars	Dollars	Percent	Percent
1949		90	3.14	3.14	90	89
1950 4/		81	3.07	3.35	88	85
1951		86	3.60	3.97	94	93
1952		90	3.85	4.00	93	95
1953		89	3.74	3.46	83	84
1954		75	3.15	3.15	75	80
1955		80	3.15	3.19	81	82
1956		82	3.15			
	4/18/56	84	3.25	3.31	86	84
1957		82	3.25	3.28	83	82
1958		75	3.06	3.16	77	77
1959		77	3.06	3.22	81	81
1960		76	3.06			
	9/17/60	80	3.22			
	3/10/61	85	3.40	3.31	83	83
1961		83	3.40	3.38	83	82
1962 5/		75	3.11	3.19	76	76
1963		75	3.14	3.24	77	77
1964		75	3.15	3.30	77	78
1965		75	3.24	3.45	80	79
1966		78	3.50			
	6/30/66	89.5	4.00	4.11	92	90
1967		87	4.00	4.07	88	87
1968		89.4	4.28	4.30	90	87
1969		83	4.28	4.55	88	86
1970		85	4.66	4.76	87	85
1971		85	4.93	4.91	85	82
1972		79	4.93	5.22	84	80
1973	3/15/73	75	5.29			
	8/10/73	80	5.61	6.95	99	91
1974		81	6.57			
	1/ 4/75	89	7.24	6.87	85	78
1975		79	7.24			
	10/ 2/75	84	7.71	8.12	89	84
1976		80	8.13			
	10/ 1/76	81	8.26	8.52	84	82
1977 6/		82	9.00	7/8.77	80	80
1977		82	9.00			
	4/ 1/78	86	9.43	9.27	85	79
1978		80	9.87			

1/ Start of marketing year January 1, 1949-50, April 1, 1951-77, October 1, 1977 to present. 2/ If other than start of year. 3/ Except as noted, this is the actual percentage of the parity equivalent price published in month before the marketing year. In some cases the announced percentages, based on forward estimates of parity, were slightly different. 4/ January 1, 1950-March 31, 1951. 5/ Beginning November 1962, parity equivalent is based on prices for all manufacturing grade milk instead of the "3-product" price for American cheese, evaporated milk, and the butter-nonfat dry milk combination used before. 6/ April-September transition period. 7/ Adjusted to the annual average fat test.

Table 2--Dairy products under price support programs, USDA purchase price per pound, 1962-78 1/

Effective date of change	Butter, Grade A or higher, Chicago	Butter, Grade A or higher, New York	Nonfat dry milk, extra grade, Spray	Natural Cheddar cheese, Grade A or higher
	Cents			
4/01/62	57.966	58.75	14.40	34.60
4/01/63	57.966	58.75	14.40	35.60
4/01/65	58.966	59.75	14.60	36.10
4/01/66	60.966	61.75	16.60	39.30
6/30/66	66.466	67.25	19.60	43.75
4/01/68	2/ 66.442	67.25	23.10	47.00
4/01/69	2/ 67.644	68.50	23.35	48.00
4/01/70	2/ 69.846	70.75	27.20	52.00
4/01/71	67.784	68.75	31.70	54.75
4/01/72	67.708	68.75	31.70	54.75
4/15/73	60.922	62.00	37.50	62.00
8/10/73	60.922	62.00	41.40	65.00
4/01/74	60.570	62.00	56.60	70.75
1/04/75	68.070	69.50	60.60	77.25
4/01/75	69.193	70.75	60.60	79.25
10/2/75	79.693	81.25	62.40	85.00
4/01/76	85.817	87.75	62.40	90.50
10/1/76	90.817	92.75	62.40	92.50
4/01/77 4/	100.710	102.75	68.00	3/ 98.00
4/01/78	106.710	108.75	71.00	3/103.25
10/01/78	111.300	113.50	73.75	3/106.00

1/ Prices for bulk containers--butter, 64 and 68-pound packages; nonfat dry milk, nonfortified in 100-pound bags (50-pound bags since April 1969); and cheese, mostly in 40 and 60-pound blocks. See DS-325, May 1969, table 6 for 1949-61 data. 2/ Prices varied slightly during the year due to changes in freight rates. 3/ 3 cents less for barrel cheese. 4/ Remain in effect at the start of the marketing year beginning 10/1/77.

Table 3--Computations of parity equivalents for manufacturing milk, per 100 pounds, marketing years, 1962-78 1/

Marketing year beginning in: 2/	Base period 3/: All milk wholesale	Base period 3/: Manufacturing grade milk 5/	Base period 3/: Ratio	Adjusted base price 6/	Parity 4/: Index (1910-14=100)	Parity 4/ Prices: All milk wholesale	Parity 4/ Prices: Equivalent of manufacturing milk
	Dollars	Dollars	Percent	Dollars		Dollars	Dollars
1962	4.25	3.36	79.1	1.72	305	5.25	4.15
1963	4.17	3.27	78.4	1.72	310	5.35	4.19
1964	4.15	3.24	78.1	1.72	313	5.38	4.20
1965	4.17	3.25	77.9	1.74	318	3.53	4.31
1966	4.19	3.27	78.0	1.73	331	5.73	4.47
1967	4.25	3.34	78.6	1.73	340	5.88	4.62
1968	4.33	3.42	79.0	1.73	350	6.06	4.79
1969	4.44	3.52	79.3	1.76	369	6.49	5.15
1970	4.57	3.65	79.9	1.78	386	6.87	5.49
1971	4.73	3.79	80.3	1.79	405	7.21	5.79
1972	4.89	3.94	80.6	1.82	423	7.70	6.21
1973	5.09	4.13	81.1	1.83	473	8.64	7.01
1974	5.39	4.43	82.2	1.80	549	9.88	8.12
1975	5.81	4.83	83.1	1.80	612	11.00	9.14
1976	6.26	5.26	84.0	1.82	664	12.10	10.16
1977 7/	6.75	5.72	84.7	1.88	685	12.90	10.93
1978	6.18	7.22	85.6	1.90	756	14.40	12.33

1/ See DS-325, May 1969, table 7 for 1948-61. 2/ Marketing year began on April 1 until shifted to October 1 in 1977. 3/ For the 10 calendar years immediately preceding. 4/ From issues of Agricultural Prices immediately preceding start of marketing year. 5/ Prior to November 1962, the "3-product" price series was used. 6/ 120-month average of farm prices for all wholesale milk divided by 120-month average of the Index of Prices Received by Farmers (both adjusted for supplemental payments), ending with December of previous year. Actual price received during 1910-14 was $1.61. 7/ Computations were identical on both April 1 and October 1.

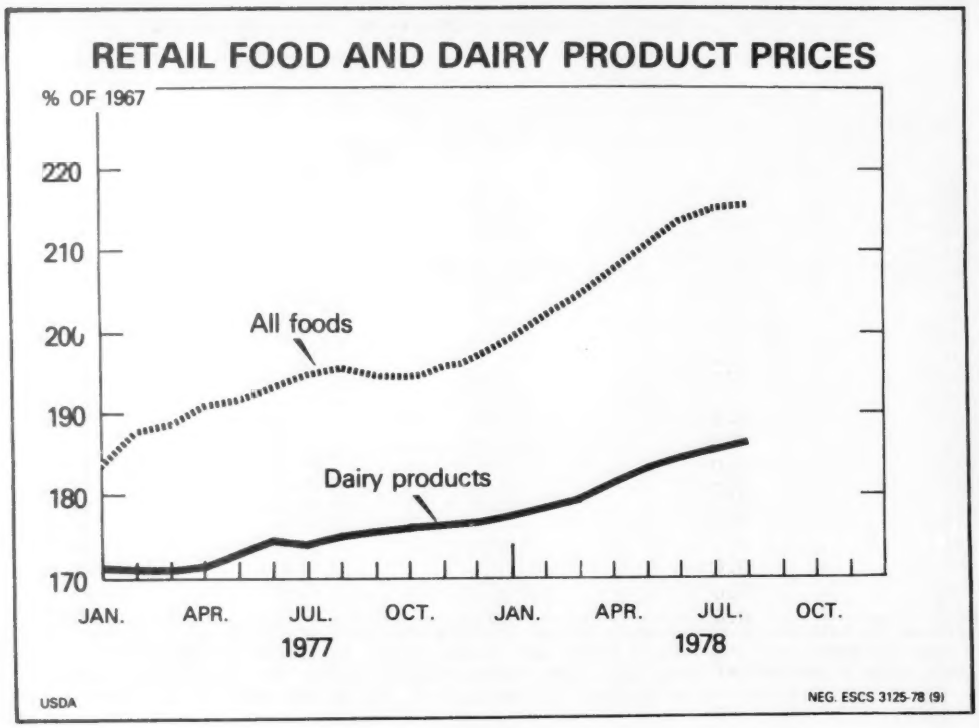


Figure 9

dairy prices during the second half of 1978 will be considerably larger than 1977's very small rise but are unlikely to approach the jumps of either late 1973 or 1975.

The BLS index of retail dairy prices (as well as other indexes) has been considerably revamped and the 1978 data may not be completely comparable with earlier years. The relative weights have been updated and are now based on expenditures of all urban consumers instead of just urban wage and clerical workers.

Within the dairy index, the relative weights of butter and whole milk were reduced while the weights of other fluid milk, cheese, and ice cream were increased. In total, manufactured dairy products carry a slightly larger weight than formerly. Prices of dairy products not previously included are taken into account. Price changes now reflect the entire spectrum of farms of a product instead of one very specific type (i.e. half-pound package of processed American cheese). However, average retail prices per unit of a specific product (at least temporarily) will not be available. Retail price data may now reflect wholesale price changes more rapidly than previously since data are collected throughout the month instead of just early in the month.

During the first half of 1978, prices of fluid milk products and manufactured dairy products rose at very similar rates. However, the retail price patterns likely will show considerable deviation during the second half, with manufactured product prices showing most of the seasonal rise by early fall but retail fluid prices probably will not have completed the bulk of the seasonal rises until late fall.

Over $27 Billion Spent for Dairy Products in 1977

Consumers spent $27.4 billion for dairy products in 1977, consisting of $12.7 billion for fluid products and $14.7 billion for manufactured dairy products (table 4). Expenditures for dairy products rose only about half as much as expenditures for all foods. The 5-percent increase in consumer expenditures for dairy products reflected the small rise in prices and a larger proportion eaten outside

Table 4--Consumer expenditures for food and dairy products, income, and labor required to purchase specified dairy products, selected years, 1950-77

Year	Consumer expenditures			Disposable personal income	Hourly wage rate 2/
	For all foods 1/	For dairy products			
		Amount	Percentage of all food		
	Bil. dol.	Mil. dol.	Pct.	Bil. dol.	Dol.
1950	46.0	8,157	17.7	205.4	1.44
1955	58.1	10,301	17.7	273.3	1.86
1960	70.5	12,098	17.2	349.4	2.26
1965	85.8	13,049	15.2	472.2	2.61
1966	92.6	13,606	14.7	510.4	2.72
1967	95.0	14,100	14.8	544.5	2.83
1968	102.7	14,882	14.5	588.1	3.01
1969	109.5	15,460	14.1	630.4	3.19
1970	118.6	16,106	13.6	685.9	3.36
1971	122.0	16,698	13.7	742.8	3.57
1972	130.6	17,663	13.5	801.3	3.81
1973	146.8	18,919	12.9	901.7	4.08
1974	166.9	21,285	12.8	984.6	4.41
1975	184.7	22,706	12.3	1,086.7	4.81
1976	199.1	25,993	13.1	1,184.4	5.19
1977 3/	217.0	27,389	12.6	1,303.0	5.63

Year	Time worked to earn money to purchase 4/				
	Butter, 1-lb.	Milk at stores, ½-gal.	American cheese, ½-lb.	Ice cream, ½-gal.	Evaporated milk, 14½-oz. can
	Minutes				
1950	29.6	15.8	11.7	5/35.6	5.1
1955	22.5	13.8	10.2	26.6	4.3
1960	19.5	12.8	9.0	22.2	4.1
1965	17.3	10.9	8.7	18.1	3.5
1966	17.9	11.0	9.2	17.5	3.5
1967	17.6	10.9	9.2	17.2	3.6
1968	16.7	10.7	8.8	16.1	3.4
1969	15.9	10.4	8.8	15.3	3.3
1970	15.5	10.2	9.0	15.1	3.3
1971	14.8	9.9	8.9	14.4	3.3
1972	13.7	9.4	8.6	13.5	3.1
1973	13.5	9.6	8.9	13.4	3.3
1974	12.9	10.7	9.9	14.6	3.9
1975	12.8	9.8	9.6	15.2	3.8
1976	14.6	9.6	10.0	14.7	4.0
1977 3/	14.2	8.9	9.5	14.4	3.9

1/ Excludes alcoholic beverages, food donated by the Government, non-personal spending for food, and institutional food use. 2/ Average of all manufacturing industries. 3/ Preliminary. 4/ Based on hourly wage rates of all manufacturing industries. 5/ 1951.

the home, since the quantity consumed was about the same as 1976.

The less-than-3-percent increase in retail dairy prices in 1977 was dwarfed by the 10-percent rise in disposable income and the 8-percent rise in wages. It took the average wage earner only about 70 minutes a week in 1977 to earn the money for the dairy products in the market basket of farm foods, down 4 minutes from 1976 and 8 minutes from 1974. Last year's level was similar to the previous lows of 1972 and 1973, although the individual product figures showed considerable variation (figure 10).

Expenditures for dairy products eaten away from home rose slightly more than expenditures for home use. The proportion of consumer dairy expenditures which represents products eaten outside the home has risen in recent years, although it was still only about 32 percent of the total.

Item	Consumer expenditures for dairy products	
	1976	1977
	Billion dollars	
At-home	18.0	18.5
Away-from-home	8.0	8.9
Public eating places	5.9	6.6
Institutions	2.1	2.3
Total	26.0	27.4

UTILIZATION

Butter-Powder Output Down Greatly

With less milk available for manufacturing than a year ago and strong demand for milk to go into cheese production, summer output of butter and nonfat dry milk was down sharply from a year earlier. Butter production was down 18 percent in August, following a drop of a tenth in July. Preliminary estimates indicate a decline in September similar to August's drop. Nonfat dry milk output in August was about a fourth less than last year, after a drop of a fifth in July. Butter-

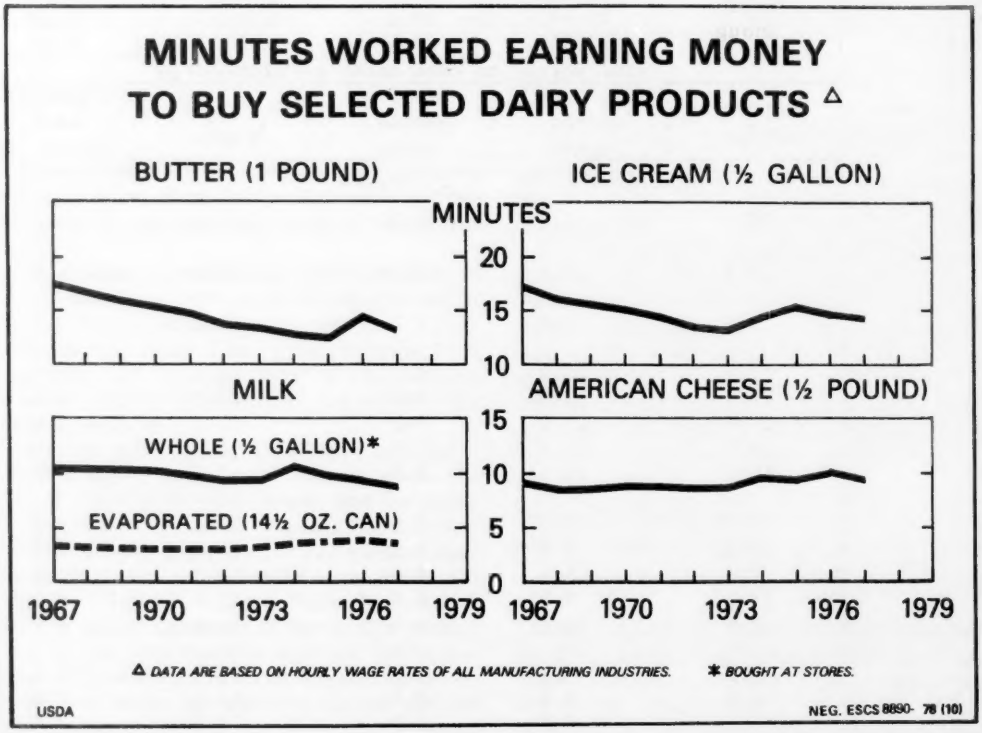


Figure 10

Production of selected manufactured dairy products, 1977/78

Item	Jan.-Aug.		Change from year earlier	
	1977	1978[1]	1977	1978[1]
	Million pounds		*Percent*	
Butter	755.0	719.4	+13.3	-4.7
Cheese:				
American	1,459.1	1,460.0	+2.0	+0.1
Other	860.9	935.9	+2.6	+8.7
Cottage, creamed	601.8	601.7	+.2	0
Canned milk	599.8	548.4	-13.2	-8.6
Dry whole milk	51.2	52.1	-11.9	+1.8
Ice cream (Mil. gal.)	563.2	568.2	-1.6	+0.9
Milk equivalent[2]	46,519	45,869	+4.7	-1.4
Nonfat dry milk	815.0	724.4	+18.8	-11.1

[1] Preliminary. [2] Total all reported manufactured products.

powder operations have been at a wholesale price disadvantage, relative to American cheese plants, since mid-August. In addition, butter-powder operations are not under the normal pressure to maintain production levels in a tightening market, since USDA stocks of butter are sufficient to more than cover any possible shortfall in coming months and the reduced nonfat dry milk output is just now coming into balance with commercial use.

American cheese output this summer posted small increases from a year ago but remained below the levels of 2 years earlier. Although cheese plants have attracted enough milk to keep pace with the increased commercial use, the increases in output have not eased the tight commercial stocks picture. Production of other cheese was about 7 percent larger than a year ago in July-August.

Among other products, canned milk production in July-August was considerably below a year before while dry whole milk production was somewhat larger. Output of dry whey and modified whey products (both for human and animal use) was up sharply, encouraged by the higher whey prices since mid-1977. Production of lactose and condensed whey for feed was also larger although edible condensed whey output was below last year.

The lower milk output has substantially reduced supplies of milk available for manufacturing. The milk equivalent of all manufactured products was about 3 percent below a year earlier in July-August and was also lower than 1976. The amount of milk for manufacturing probably will remain well below a year ago during the rest of the year. From these smaller supplies, cheese operations probably will draw more milk than a year ago to meet the expected strong cheese demand, leaving continued sharp drops in butter-powder output.

Wisconsin out-of-state milk shipments

Month	1977		1978	
	Loads	Volume	Loads	Volume
	Number	*Thousand pounds*	*Number*	*Thousand pounds*
January	206	9,682	206	9,682
February	163	7,661	314	14,758
March	59	2,773	239	11,233
April	6	282	183	8,601
May	1	47	154	7,238
June	28	1,316	57	2,679
July	85	3,995	121	5,687
August	40	1,880	119	5,593
September	491	23,077	475	22,325
October	347	16,309		
November	396	18,612		
December	292	13,724		
Total	2,114	99,358		

Gains in Commercial Use To Slow

After posting a robust increase of almost 5 percent during the first half of 1978, commercial use of milk and dairy products during the rest of the year probably will be considerably closer to a year earlier. However, this would be more the result of strengthening demand last year than a weakening demand this year. With consumer purchasing power likely to remain favorable and year-to-year increases in retail dairy prices expected to still lag behind increases in all food prices, demand for dairy products probably will continue brisk. Even so, prospective retail price increases will somewhat temper milk and dairy product sales.

Total commercial disappearance in July-August was still almost 3 percent above a year ago (table 5). If, as expected, sales during the last 4 months of 1978 match or slightly exceed last year's levels, total commercial use in 1978 would be 2½ to 3 percent above the previous record.

Changes in dairy sales from year earlier

Item	Change		
	Jan.-Mar.	Apr.-June	July-Aug.
	Percent		
Total milk[1]	+5.1	+4.3	+2.7
Manufactured products:			
American cheese	+14.0	+7.8	+11.3
Other cheese	+11.3	+4.4	+9.5
Cottage cheese[2]	+0.1	+2.1	+1.0
Butter	+13.8	+23.8	+1.0
Ice cream	0	+0.9	+1.8
Ice milk	-4.0	+0.4	+0.5
Canned milk	-4.5	-3.4	-7.9
Nonfat dry milk	-9.9	+5.8	+11.7
Fluid products:	+0.9	+0.7	-0.6
Whole milk	-1.6	-2.1	-2.7
Skim and lowfat milk	+5.4	+5.5	+3.2
Cream and mixtures	-2.0	-2.4	N.A.

[1] On a milk equivalent, fat-solids basis. [2] Creamed and low-fat. N.A.-Not available.

Table 5--Commercial disappearance: Total milk, annual and by quarters, 1976-78 1/

Item	1976	1977					1978 2/				
		By quarters				Annual	By quarters				Annual
		1st	2nd	3rd	4th		1st	2nd	July-August	4th	
		Billion pounds									
Production	120.3	29.8	33.1	30.9	29.0	123.0	29.9	32.8	20.9		
Farm use	3.0	.7	.7	.7	.7	2.8	.7	.7	.5		
Marketings	117.3	29.1	32.4	30.2	28.3	120.1	29.2	32.1	20.4		
Beginning commercial stocks	3.7	5.3	5.5	7.1	6.0	5.3	4.9	4.8	5.6		
Imports	1.9	.5	.4	.4	.7	2.0	.5	.4	.3		
Total supply	123.0	34.9	38.3	37.7	35.0	127.4	34.6	37.3	26.3		
Ending commercial stocks	5.3	5.5	7.1	6.0	4.9	4.9	4.8	5.6	5.6		
Net removals	1.2	2.1	2.6	1.1	.3	6.1	1.2	1.9	.1		
Commercial disappearance											
Actual	116.4	27.2	28.6	30.6	29.8	116.4	28.6	29.8	20.6		
Percent change 3/	+2.3	4/-2.8	-3.4	+3.5	+3.6	0	+5.1	+4.3	+2.7		

1/ Milk equivalent, fat solids basis. Totals may not add due to rounding. 2/ Preliminary. 3/ From year earlier using unrounded data. 4/ On a daily average basis.

Table 6--Commercial disappearance: Selected dairy products, United States, annual 1969-77, by quarters, 1977-78

Year and quarter	Butter 1/	Cheese		Nonfat dry milk	Canned milk	Frozen products 3/
		American 2/	Other			
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. gal.
1969	921.9	1,281.0	861.6	1,042.1	1,376.1	1,092.2
1970	898.2	1,398.0	909.1	983.2	1,213.8	1,097.3
1971	847.1	1,454.8	987.0	981.8	1,186.9	1,102.4
1972	885.4	1,595.7	1,127.8	919.2	1,102.6	1,108.6
1973	855.6	1,677.1	1,210.2	1,110.1	1,056.7	1,118.6
1974	929.9	1,780.6	1,276.5	809.9	999.5	1,128.0
1975	951.0	1,717.1	1,331.9	697.0	923.9	1,183.9
1976	919.0	1,920.9	1,458.0	719.2	899.0	1,154.0
1977	859.2	1,958.1	1,512.3	681.6	799.2	1,147.4
1977 - 1st	208.7	464.8	347.1	202.5	203.9	246.0
2nd	166.1	482.5	369.6	127.8	183.0	327.3
3rd	233.5	486.1	377.2	185.6	183.7	342.3
4th	251.1	524.4	417.8	165.8	228.8	231.9
1978 - 1st	237.3	530.1	386.3	182.5	194.8	243.7
2nd	205.6	520.3	385.9	135.2	176.7	329.5
July-Aug.	145.9	339.8	271.8	132.2	106.4	242.5
4th						
	1977-78 percent change					
	Percent					
1st	+13.7	+14.0	+11.3	-9.9	-4.5	-.9
2nd	+23.8	+7.8	+4.4	+5.8	-3.4	+.7
July-Aug.	+1.0	+11.3	+9.5	+11.7	-7.9	+1.0
4th						

1/ Imports include butter equivalent of butteroil. 2/ Imports include Colby cheese; stocks do not include processed cheese. 3/ Excludes Mellorine.

Table 7--Milk: Supply and utilization in all dairy products, United States, 1965-77 1/

Year	Supply						Utilization						
	Production	Imports	Beginning stocks: Commercial	Beginning stocks: Government	Total	Total use	Exports and shipments: Commercial 2/	Exports and shipments: USDA 3/	Exports and shipments: Total	Domestic disappearance: Fed to calves	Domestic disappearance: Food use: Civilian consumption: Military	Domestic disappearance: Food use: Civilian consumption: Total	Domestic disappearance: Food use: Civilian consumption: Per capita
	Million pounds												Pounds
1965	124,180	923	4,317	973	130,393	125,937	1,710	648	2,358	2,061	2,819	118,699	620
1966	119,912	2,791	3,918	538	127,159	122,300	907	301	1,208	1,980	2,376	116,736	604
1967	118,732	2,908	4,813	46	126,499	118,247	593	231	824	1,891	2,117	113,415	581
1968	117,225	1,780	4,258	3,994	127,257	120,550	814	957	1,771	1,821	3,295	113,663	577
1969	116,108	1,621	3,983	2,724	124,436	119,191	942	477	1,419	1,745	2,696	113,232	569
1970	117,007	1,874	3,798	1,447	124,126	118,323	949	41	990	1,702	2,419	113,212	562
1971	118,566	1,346	3,705	2,098	125,715	120,611	1,063	1,963	3,026	1,635	2,031	113,919	558
1972	120,025	1,694	3,565	1,539	126,823	121,325	1,263	884	2,147	1,624	1,671	115,883	561
1973	115,491	3,860	3,493	2,005	124,849	119,641	1,213	79	1,292	1,584	1,257	115,508	555
1974	115,586	2,923	4,732	476	123,717	117,831	1,133	25	1,158	1,558	1,137	113,978	544
1975	115,334	1,669	5,576	310	122,889	119,046	1,026	20	1,046	1,567	1,075	115,358	546
1976	120,269	1,943	3,719	124	126,055	120,346	1,004	23	1,027	1,562	1,013	116,744	548
1977 4/	122,957	1,969	5,299	410	130,635	122,009	963	29	992	1,534	996	118,487	552

1/ Milk equivalent, fat solids basis. 2/ Includes sales for dollars and government-to-government sales. 3/ Includes P.L. 480 and Aid programs. 4/ Preliminary.

Table 8--Dairy products: Per capita civilian consumption, United States, 1965-77 1/

Year	Fluid milk and cream 2/: Sales of fluid products	Fluid milk and cream 2/: Total	Butter	Cheese: Whole and part skim milk 3/: American	Cheese: Whole and part skim milk 3/: Other	Cheese: Cottage cheese	Evaporated and condensed: Canned, whole milk	Evaporated and condensed: Bulk condensed, whole milk	Skim and buttermilk	Frozen products: Ice cream	Frozen products: Ice milk	Frozen products: Sherbet	Frozen products: Other frozen dairy products	Frozen products: Mellorine	Dry milk products: Dry whole milk	Dry milk products: Nonfat dry milk	Dry milk products: Dry buttermilk	Dry milk products: Dry whey 4/
	Pounds																	
1965	272	290	6.4	6.2	3.4	4.6	8.6	2.1	5.0	18.5	6.6	1.5	0.2	1.3	0.3	5.6	0.4	0.6
1966	272	289	5.7	6.2	3.6	4.6	7.9	1.9	5.4	18.2	6.8	1.6	.2	1.3	.3	5.9	.3	.7
1967	265	280	5.5	6.4	3.7	4.5	7.3	1.7	5.0	17.8	7.0	1.5	.2	1.3	.3	5.6	.3	.9
1968	266	280	5.7	6.6	4.0	4.6	7.1	1.8	4.8	18.4	7.2	1.6	.2	1.4	.2	5.8	.3	1.1
1969	265	277	5.4	6.7	4.2	4.8	6.4	1.5	5.0	18.0	7.6	1.7	.2	1.3	.2	5.8	.3	1.2
1970	264	275	5.3	7.1	4.4	5.2	5.9	1.2	5.0	17.7	7.8	1.6	.2	1.2	.2	5.4	.2	1.5
1971	263	273	5.1	7.4	4.7	5.4	5.7	1.1	5.1	17.5	7.8	1.6	.2	1.1	.2	5.3	.3	1.6
1972	266	275	4.9	7.8	5.4	5.4	5.1	1.2	4.8	17.4	7.7	1.6	.3	1.1	.1	4.6	.2	1.8
1973	264	272	4.8	8.0	5.7	5.3	4.9	1.1	4.3	17.5	7.7	1.7	.3	.9	.1	5.3	.2	1.8
1974	256	264	4.6	8.6	6.0	4.7	4.4	1.2	3.5	17.5	7.8	1.6	.3	.8	.1	4.2	.2	2.2
1975	262	269	4.8	8.3	6.2	4.7	3.9	1.4	3.6	18.7	7.8	1.5	.3	.7	.1	3.3	.2	2.3
1976	260	266	4.4	9.1	6.8	4.8	3.7	1.3	3.7	18.1	7.4	1.5	.3	.5	.2	3.6	.2	2.5
1977 5/	258	264	4.4	9.4	6.9	4.8	3.3	1.1	4.0	17.7	7.5	1.5	.3	.4	.2	3.4	.3	2.5

1/ See table 15, DS-332, for earlier years. 2/ Product pounds. 3/ Excludes cottage cheese. 4/ Includes modified dry whey products beginning 1975. 5/ Preliminary.

Although demand has been strong for most dairy products, gains in commercial use of butter and American cheese have done the most to boost the total thus far this year. However, gains in commercial disappearance of butter slowed greatly this summer as July-August butter sales were just slightly above a year ago (table 6). The pattern of commercial butter use this year has been similar to 1976, unlike 1977 when nonretail use fell sharply in the first half of the year.

Commercial disappearance of cheese remained well above a year ago in July-August. Sales of American types were up more than a tenth while use of other types was 9 percent higher. Cheese sales have been boosted by improved consumer incomes and further helped by higher retail meat prices. Demand for cheese is expected to remain brisk in coming months but the rate of gain in commercial use probably will drop, reflecting the sharp sales pickup in early autumn of 1977.

Fluid milk sales in July-August were just barely below a year ago, after showing slight increases in earlier months. On the other hand, ice cream sales were somewhat above last year. Although use of creamed cottage cheese remained close to a year ago in July-August, lowfat cottage cheese sales were well above. Commercial disappearance of nonfat dry milk was larger than last year in July-August, probably reflecting some rebuilding of user inventories.

Commercial Stocks Still Tight

Commercial stocks of dairy products remained low on September 1. Holdings of milkfat were down about 17 percent from a year ago and stocks of milk solids-not-fat were down about a fifth; both were the lowest since the very tight stocks of 1975. While tight commercial holdings will do much to keep wholesale prices above support purchase prices this fall, the availability of very large USDA stocks of butter and nonfat dry milk, at 110 percent of support purchase prices, will limit potential price response to the tight commercial stocks.

September 1 commercial stocks of American cheese were down 16 percent from a year ago and were tight relative to current sales. This probably will result in additional demand for milk to use in cheese output in coming months, in order to slow the seasonal decline in American cheese stocks. Stocks of other varieties were moderate on September 1.

Industry holdings of butter on September 1 were down almost a third from a year ago as a result of sharply reduced production and fairly strong sales. These stocks had already been bolstered by small purchases from CCC stocks. Butter stocks in commercial hands may well remain below a year ago during the rest of 1978. If wholesale prices rise to the new sell-back price, there would be little incentive for the industry to hold much more than pipeline levels.

Dairy product stocks

Item	Sept. 1, 1976	Sept. 1, 1977	Sept. 1, 1978
	Million pounds		
Commercial:			
Butter	79.0	56.2	38.4
American cheese	450.7	476.7	400.4
Other cheese	66.4	73.3	71.7
Nonfat dry milk	123.3	109.6	74.9
Milkfat	243.5	235.8	195.4
Solids-not-fat	309.3	306.5	246.8
Milk equivalent	6,915	6,754	5,591
Government:			
Butter	3.3	152.4	260.2
American cheese	1.0	58.0	51.1
Nonfat dry milk	389.2	543.7	626.8
Milkfat	3.0	141.4	225.9
Solids-not-fat	374.7	541.0	618.7
Milk equivalent	78	3,721	5,878

Manufacturers' stocks of nonfat dry milk were 32 percent less than September 1, 1977. Although low by historic standards, these holdings probably were not much out of line with expected needs.

Among other products, commercial stocks of both canned milk and dry whole milk were moderate. Manufacturers' stocks on September 1 of dry whey were substantially larger than last year, but probably were no more than adequate to meet expected needs.

CCC Purchases Drop; Butter Sold

CCC purchases under the price support program dropped dramatically this summer, as the supply-demand balance tightened and wholesale prices started to rise. Net removals during July-September were slightly less than zero, on a milk equivalent basis, as sales in August-September more than offset small July purchases. Under the expected supply-demand conditions, USDA purchases of butter and cheese probably will be negligible until at least yearend.

About 12 million pounds of butter and more than 2 million pounds of cheese were sold for

USDA dairy purchases[1]

Item	January-September		
	1977	1978	Change
	Million pounds		*Percent*
Butter	209.9	134.6	-35.9
American cheese	146.3	41.6	-71.6
Nonfat dry milk	395.5	269.7	-31.8
Evaporated milk	11.5	17.4	+51.3
Milk equivalent	5,805	3,229	-44.4

[1] Delivery basis, after sales for unrestricted use.

Table 9--Dairy products removed from the commercial market by programs of the U.S. Department of Agriculture, marketing years, 1965-77 1/

Marketing year beginning in: 2/	Removals 3/						Solids content of removals			
	Butter 4/	Cheddar cheese	Dry whole milk	Evaporated milk	Nonfat dry milk 5/	Milk equivalent	Milkfat	Solids-not-fat	As a percentage of marketings: Milkfat	As a percentage of marketings: Solids-not-fat
	Million pounds					Bil. lb.	Million pounds		Percent	
1965	126.3	21.2	---	---	880.5	2.9	114.8	854.9	2.6	8.7
1966	109.2	39.9	---	---	421.0	2.7	103.6	418.4	2.4	4.4
1967	246.5	175.1	---	---	633.4	7.0	259.3	665.7	6.2	7.0
1968	186.4	66.9	---	54.9	555.9	4.8	179.8	567.1	4.4	6.0
1969	182.1	30.6	---	107.5	357.6	4.4	167.4	374.6	4.1	3.9
1970	305.4	56.8	---	79.0	452.3	7.2	273.5	469.9	6.6	4.9
1971	262.4	87.0	0.6	102.0	463.5	6.6	250.7	494.1	5.9	5.0
1972	220.2	20.1	1.5	81.2	259.9	5.0	192.4	274.1	4.5	2.8
1973	26.1	4.9	3.4	50.0	41.6	.7	27.7	53.2	.7	.6
1974	66.9	93.5	.9	33.7	393.6	2.4	89.6	414.8	2.2	4.3
1975	26.1	33.3	---	24.5	274.8	.9	35.6	279.3	.9	2.9
1976	114.9	96.9	---	16.5	186.4	3.4	126.3	213.3	2.9	2.1
1977 6/	133.9	87.4	---	9.7	345.5	3.6	139.1	362.4	---	---
1977	134.6	41.6	---	17.4	338.5	3.2	125.5	342.9	2.9	3.3

1/ For earlier years see DS-335, May 1971, page 22. 2/ Start of marketing year April 1, 1965-77, October 1, 1977 to present. 3/ Delivery basis after domestic unrestricted sales. Includes purchases of butter, cheese, evaporated milk, and nonfat dry milk under Section 709 and Section 4(a). 4/ Includes butter equivalent of anhydrous milkfat, and PIK purchases. 5/ Includes PIK certificates issued; beginning January 1972, also includes Title I exports originating from private stocks. 6/ April-September transition period.

unrestricted use in August-September. The industry might buy back additional small amounts of butter in coming months if wholesale prices rise to the new sell-back prices.

During the first 9 months of 1978, CCC had net removals of 122 million pounds of butter, 40 million pounds of cheese, and 13 million pounds of evaporated milk. The milk equivalent total of 2.9 billion pounds was just half of the year-earlier level, with the largest drop occurring in cheese purchases. Even so, these purchases were almost double the low average level of 1973-76.

Nonfat dry milk purchases have also dropped sharply, although small quantities were bought in September. About 73 million pounds were purchased during the third quarter, less than half of a year earlier. The expected decline in powder output during the rest of 1978 likely will bring supplies fairly well into balance with needs—with either small purchases or small wholesale price advances possible. Total removals of nonfat dry milk were 270 million pounds in January-September, down about a third from a year ago.

For the marketing year just concluded, CCC removed from the commercial markets just less than 3 percent of the total marketings of milkfat and slightly more than 3 percent of the marketings of milk solids-not-fat (table 9). The milk equivalent total of 3.2 billion pounds was less than half the purchases during the comparable period a year earlier. CCC purchase costs came to approximately $419 million.

The sharpest drop from a year earlier was in purchases of cheese—which fell by about three-fourths to 42 million pounds. Butter removals declined 46 percent to 135 million pounds while the amount of nonfat dry milk bought was down about a fourth. Nonfat dry milk purchases were proportionally somewhat greater than butter purchases, primarily due to the large powder purchases during October-December 1977.

CCC uncommitted inventories of butter on October 1 were up about a fourth from a year ago but nonfat dry milk inventories were 8 percent below last year. In both cases, uncommitted inventories represented about 2 years' donation usage at currently anticipated rates. While some American cheese remained in uncommitted inventories, this was cheese that will be committed to donation outlets in coming months.

Uncommitted CCC stocks

Item	September 30	
	1977	1978
	Million pounds	
Butter	162.2	204.1
American cheese	69.7	30.6
Nonfat dry milk	633.9	585.1

Gains in Cheddar and Italian Cheese Use Boost 1977 Total

Per capita cheese consumption rose about a half pound to 16.4 pounds in 1977. Almost all of the increase was due to larger use of Cheddar and Italian varieties. Over the past decade, per person cheese use increased almost two-thirds (table 10 and figure 11).

Less than half of the 1977 increase in per capita cheese consumption came from commercial use, with the remainder representing larger USDA donations of American cheese acquired under the price support program. Sales of cheese in 1977 posted a relatively small gain after the very sharp jump of the preceding year.

Per capita cheese sales rose about a fourth between 1972 and 1977, even though cheese prices rose more rapidly than the averages for all foods or all dairy products. Higher consumer incomes have been important in this growth in demand as have changes in lifestyle and eating habits. Increased awareness of nutrition and greater knowledge of the diversity of cheese types and their use (partially the result of promotion efforts) have also helped.

Approximate change in wholesale cheese prices, 1972-77

Type	Cents per pound	Percent
American		
Natural, unaged	37	62
Processed	44	66
Swiss		
Domestic	56	76
Imported	50	46
Brick and Munster		
Domestic	44	64
Blue		
Domestic	50	59
Imported	68	66
Edam		
Imported	89	82
Parmesan		
Domestic	105	104
Imported	182	83
Provolone		
Domestic	46	58
Imported	123	67

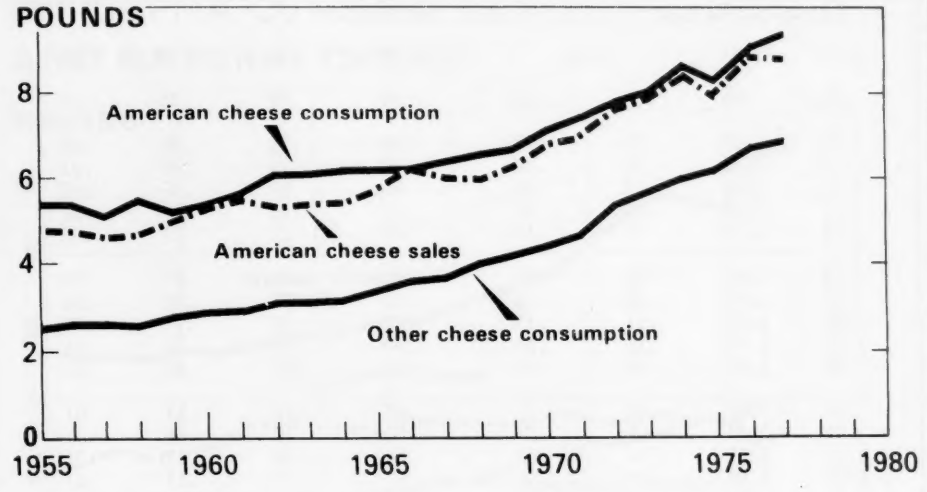
Although prices of various varieties move fairly well in concert during the short run, significant differences in rates of increase become apparent over a period of years. Price rises over the past 5

Table 10--Sales and civilian consumption of American and other cheese, United States, selected years, 1950-77

Year	Sales 1/			USDA donations			Civilian consumption	Per capita	
	Civilian	Military	Total	Civilian	Military	Total		Sales	Civilian consumption
	Million pounds							Pounds	
	American cheese								
1950	798	11	809	25	---	25	823	5.4	5.5
1955	782	13	795	88	2	90	870	4.8	5.4
1960	938	7	945	27	1	28	965	5.3	5.4
1965	1,098	8	1,106	80	3	83	1,178	5.7	6.2
1966	1,195	11	1,206	5	---	5	1,200	6.2	6.2
1967	1,168	14	1,182	81	---	81	1,249	6.0	6.4
1968	1,191	13	1,204	105	4	109	1,296	6.0	6.6
1969	1,249	10	1,259	90	1	91	1,339	6.3	6.7
1970	1,385	8	1,393	46	---	46	1,431	6.8	7.1
1971	1,445	7	1,452	75	---	75	1,520	7.0	7.4
1972	1,568	5	1,573	46	---	46	1,614	7.6	7.8
1973	1,657	4	1,661	4	---	4	1,661	7.9	8.0
1974	1,768	3	1,771	43	---	43	1,811	8.4	8.6
1975	1,689	3	1,692	73	---	73	1,762	7.9	8.3
1976	1,908	4	1,912	25	---	25	1,933	8.9	9.1
1977 2/	1,904	7	1,911	117	---	117	2,021	8.8	9.4
	Other cheese								
1950	332	1	333	---	---	---	332	2.2	2.2
1955	411	1	412	---	---	---	411	2.5	2.5
1960	524	1	525	---	---	---	524	2.9	2.9
1965	648	5	653	---	---	---	648	3.4	3.4
1966	689	7	696	---	---	---	689	3.6	3.6
1967	720	8	728	---	---	---	720	3.7	3.7
1968	787	7	794	---	---	---	787	4.0	4.0
1969	843	6	849	---	---	---	843	4.2	4.2
1970	886	6	892	---	---	---	886	4.4	4.4
1971	966	5	971	---	---	---	966	4.7	4.7
1972	1,105	5	1,110	---	---	---	1,105	5.3	5.4
1973	1,188	5	1,193	---	---	---	1,188	5.7	5.7
1974	1,260	7	1,267	---	---	---	1,260	6.0	6.0
1975	1,310	7	1,317	---	---	---	1,310	6.2	6.2
1976	1,443	3	1,446	---	---	---	1,443	6.7	6.8
1977 2/	1,491	2	1,493	---	---	---	1,491	6.9	6.9

1/ Domestic disappearance, commercial sources. 2/ Preliminary.

PER CAPITA CHEESE CONSUMPTION AND SALES



USDA

Figure 11

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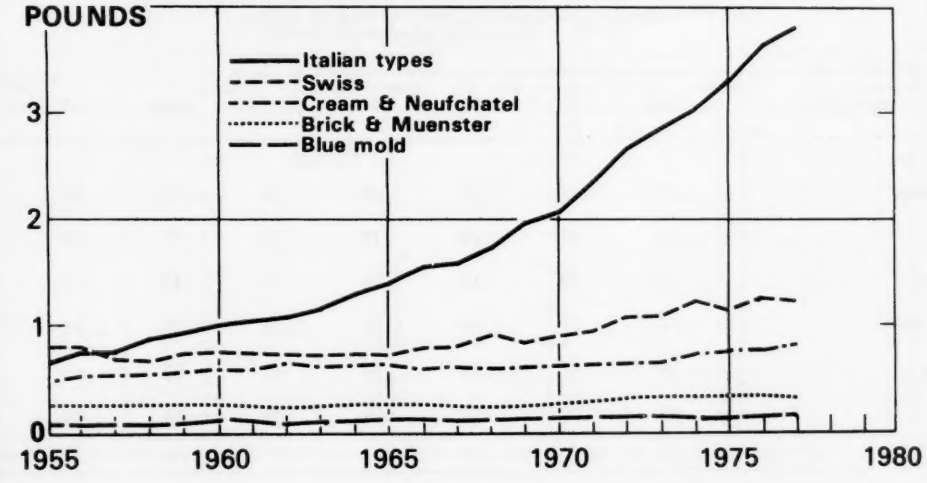
PER CAPITA CONSUMPTION OF OTHER CHEESE



USDA

Figure 12

NEG. ESCS 8370- 78 (10)

Table 11--Per capita consumption of selected cheese varieties, United States, selected years, 1950-77

Year	Swiss 1/	Italian-types 2/	Brick	Muenster	Cream and Neufchatel	Blue mold 3/	Edam and Gouda	Limburger	Roquefort
					Pounds				
1950	0.70	0.54	0.20		0.46	0.08	0.04	0.04	0.01
1955	.81	.66	.16	.11	.49	.09	.05	.03	.01
1960	.76	1.00	.15	.13	.60	.11	.06	.02	.01
1961	.73	1.02	.13	.13	.60	.11	.07	.02	.01
1962	.74	1.08	.13	.13	.66	.10	.07	.02	.01
1963	.72	1.18	.13	.13	.62	.10	.07	.02	.01
1964	.74	1.30	.12	.15	.63	.11	.07	.02	.01
1965	.73	1.40	.12	.16	.64	.12	.07	.02	.01
1966	.80	1.53	.12	.15	.60	.13	.10	.02	.01
1967	.81	1.59	.11	.15	.62	.12	.10	.01	.01
1968	.93	1.74	.11	.15	.60	.12	.15	.01	.01
1969	.85	1.97	.10	.16	.62	.13	.10	.01	.01
1970	.90	2.09	.10	.17	.63	.14	.11	.01	.01
1971	.95	2.34	.11	.20	.64	.15	.10	.01	.01
1972	1.08	2.65	.11	.22	.65	.16	.11	.01	.01
1973	1.08	2.86	.11	.22	.67	.17	.12	.01	.01
1974	1.21	3.02	.11	.23	.72	.16	.11	.01	.01
1975	1.12	3.31	.09	.25	.76	.16	.11	.01	.01
1976	1.28	3.65	.09	.26	.79	.18	.11	.01	.01
1977	1.24	3.82	.07	.26	.82	.18	.11	.01	.01

1/ Includes imports of Gruyere and Emmenthaler. 2/ Includes imports of Romano, Pecorino, Reggiano, Parmesano, Provolone, and Provelette. 3/ Includes Gorgonzola.

Table 12--Per capita consumption of Italian-type cheese, by variety, United States, selected years, 1964, 1972-1977

Variety	1964	1972	1973	1974	1975	1976	1977
				Pounds			
Provolone	.17	.24	.27	.28	.28	.32	.35
Romano	.16	.17	.16	.15	.23	.17	.16
Parmesan	.15	.23	.19	.26	.18	.28	.27
Mozzarella	.60	1.60	1.80	1.90	2.16	2.37	2.53
Ricotta	.18	.32	.35	.34	.38	.42	.42
Other	.03	.08	.09	.09	.08	.08	.09

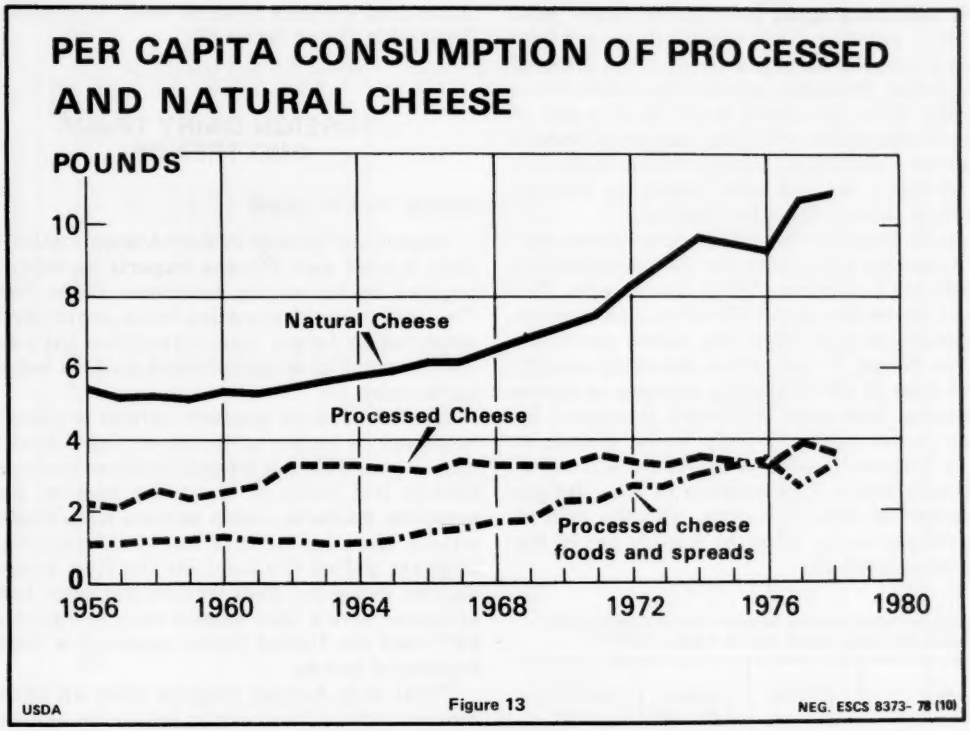


Table 13—Estimated per capita civilian consumption of processed and natural cheese, United States, selected years, 1956-77

Year	Processed	Processed foods and spreads[1]	Total processed and products[2]	Natural[3]	Total natural equivalent
			Pounds		
1956	2.2	1.1	3.3	5.4	8.0
1960	2.5	1.3	3.8	5.3	8.4
1965	3.2	1.2	4.4	5.9	9.5
1970	3.3	2.3	5.6	7.1	11.5
1971	3.6	2.3	5.9	7.5	12.1
1972	3.4	2.7	6.1	8.3	13.2
1973	3.3	2.7	6.1	8.9	13.7
1974	3.5	3.0	6.4	9.6	14.6
1975	3.3	3.4	6.7	9.3	14.5
1976	3.9	2.7	6.5	10.7	15.9
1977	3.6	3.3	7.0	10.9	16.4

[1] Includes cold pack; excludes spreads from Neufchatel and cream cheese. [2] May not add due to rounding. [3] Consumed in this form.

years have been more rapid for those varieties with a relatively low ratio of milkfat to solids-not-fat, reflecting the shift of the value of milk from the fat to the solids-not-fat component. In addition, those cheeses requiring aging have posted larger price rises, since storage costs (particularly interest charges) have risen more rapidly than the prices of current cheese. Wholesale prices of imported cheese generally have increased more than prices of domestic counterparts, reflecting support policies in the countries of origin, transportation costs, currency changes, actions taken under our countervailing duty statute, and other factors.

Per capita consumption of American cheese rose about 3 percent last year, but the increase was attributable to larger USDA donations. The increase came in use of Cheddar; per person consumption of other American cheese was about the same. Gains in per person use of Mozzarella provided most of the remaining increase in cheese consumption last year. Although threatened by imitation cheese and potentially slower growth in the pizza business, use of Mozzarella continues to grow dramatically. Consumption of other Italian varieties totaled about the same, with the gain in Provolone use being offset by smaller use of the grating types (table 12).

Estimated per capita civilian consumption of Cheddar and other American cheese, United States, 1950-77

Year	Cheddar	Other American[1]	Total American types
	Pounds		
1950	5.2	0.3	5.5
1955	4.9	.5	5.4
1960	4.8	.6	5.4
1965	5.3	.9	6.2
1966	5.0	1.2	6.2
1967	5.2	1.2	6.4
1968	5.4	1.2	6.6
1969	5.7	1.1	6.7
1970	5.9	1.2	7.1
1971	6.0	1.4	7.4
1972	6.1	1.7	7.8
1973	6.2	1.8	8.0
1974	6.4	2.2	8.6
1975	6.1	2.2	8.3
1976	6.6	2.5	9.1
1977	6.9	2.5	9.4

[1] Colby, washed or stirred curd, high and low moisture jack, Monterey and granular.

Per capita use of most other types held at 1976 levels. Exceptions to this pattern were the declines in Swiss and Brick cheese use and the gain in the Cream and Neufchatel category (table 11 and figure 12).

More than half of the 1977 increase was in use of processed forms, counter to the longrun trend. While per capita use of processed cheese fell from the unusually high 1976 level, processed cheese foods and spreads bounced back from their 1976 drop (table 13 and figure 13).

FOREIGN DAIRY TRADE AND TRENDS

Cheese Imports Larger

Imports of cheese in July-August totaled more than a year ago. Cheese imports probably were boosted by the strong domestic cheese demand. The 'pricebreak' varieties have generally been imported in larger total quantities but less has been brought in at prices which make it subject to quota (table 14).

Most other dairy products subject to quota were imported in larger amounts during July-August than a year ago, but imports of these products are held to low levels by the quota system. Among nonquota products, casein imports have fluctuated wildly thus far in 1978 but lower July-August imports pulled the total for the first 8 months slightly below the high level of last year. Imports of lactose were a little smaller than in July-August 1977 and the United States remained a large net exporter of lactose.

Total July-August imports were up about 24 percent from a year earlier on a milk equivalent, fat solids basis. This represented a pickup from the increases of the first half of 1978.

Commercial exports in July-August continued to trail a year earlier, with exports of most products sharing in the decline. U.S. dairy products cannot

U.S. dairy trade
(milk equivalent)

Year and quarters	Imports		Exports	Shipments[1]
	Cheese	Other		
	Million pounds			
1977				
1st	343	140	107	123
2nd	315	51	116	170
3rd	418	14	138	142
4th	624	61	99	92
Year[2]	1,701	266	459	527
1978				
1st	379	157	85	[3] 168
2nd	338	50	105	156
July-Aug.	324	11	56	99

[1] To U.S. territories. [2] May not add due to rounding. [3] May not be completely comparable to earlier years.

Table 14--Dairy products: U.S. imports, quota and non-quota, total 1977, and January-August, 1977-78 1/

Product	Calendar year quota	1977 imports	August			Cumulative, January-August		
			1977	1978	1978 as a % of 1977	1977	1978	1978 as a % of 1977
	Thou. lb.	Thou. lb.	Thou. lb.	Thou. lb.	Pct.	Thou. lb.	Thou. lb.	Pct.
Cheese, quota types								
American-Cheddar	10,037.5	9,337	190	545	287	3,303	5,162	156
-Other	6,096.6	6,407	15	2,554	4/	731	3,758	514
Italian-Original loaves	11,500.1	9,803	381	655	172	6,426	5,453	85
-Other	1,494.0	1,343	32	155	484	802	818	102
Edam and Gouda-Natural	9,200.4	8,251	584	581	99	4,363	4,048	93
-Processed	3,151.0	1,064	106	260	245	393	695	177
Blue Mold	5,017.0	3,354	139	299	215	2,009	3,045	152
Swiss-Emmenthaler, -$1.05 *	20,420.0	14,133	2,060	1,527	74	9,593	5,882	61
-Gruyere-process, -$1.05 *	11,242.0	9,399	757	922	122	4,368	4,588	105
Other-Over 0.5% fat, -$1.05 *	40,730.0	38,308	2,652	5,200	196	11,473	11,173	97
-Under 0.5% fat	8,901.0	4,981	550	160	29	3,294	371	11
Total	127,789.6	106,381	7,468	12,857	172	46,575	44,994	97
Cheese, non-quota types								
Swiss-Emmenthaler, $1.05 + *		45,494	4,481	4,660	104	29,009	37,506	129
-Gruyere-process, $1.05 + *		5,881	603	728	121	3,666	5,501	150
Other, $1.05 + *		31,940	2,269	2,842	125	20,635	22,867	111
Pecorino		15,825	1,449	1,044	72	11,666	11,669	100
Roquefort		1,620	68	69	101	1,054	907	86
Other 2/		2,259	300	455	152	1,782	1,257	71
Total		103,018	9,170	9,798	107	67,812	79,707	118
Other quota products								
Butter	707.0	743	42	50	119	466	418	90
Butteroil	1,200.0	1,200	---	---	---	1,200	1,200	100
Butterfat mixtures	2,580.0	2,393	---	229	---	2,393	1,627	68
Ice cream	3,377.3	3,187	---	---	---	3,187	2,166	68
Frozen cream	12,540.0	12,529	186	150	81	8,360	11,120	133
Nonfat dry milk	1,807.0	1,825	307	287	93	1,680	1,745	104
Dried buttermilk	496.0	179	---	40	---	179	202	113
Evaporated milk	1,312.0	44	---	---	---	2	---	---
Condensed milk	4,079.0	767	62	3/	---	473	432	91
Chocolate crumb-Regular	17,000.0	6,817	499	---	---	3,787	4,277	113
-Lowfat	4,680.0	2,425	160	---	---	620	840	135
Animal feed with milk solids	16,300.0	12,815	252	4,689	4/	8,582	10,784	126
Non-quota products								
Casein		144,245	15,198	11,987	79	99,055	97,190	98
Lactose		3,991	280	134	48	1,186	2,743	231
Milk equivalent, fat solids basis total all products	1,305,620	1,967,758	137,281	193,862	141	1,120,090	1,258,887	112

1/ Preliminary. 2/ Gjetost, Bryndza, Gammelost and Noekkelost, and Goya. 3/ Less than 500 pounds. 4/ More than 1,000.
*Price break effective May 1, 1978.

compete commercially with products from Oceania or with heavily subsidized European products, except where large premiums for freshness or quality can be obtained. Food aid shipments of both nonfat dry milk and corn-soy-milk mixture continued well above year-earlier levels in July-August.

July shipments to U.S. Territories were larger than a year ago. The increase was paced by larger shipments of butter and other-than-American cheese.

EC Milk Production Still Rising

Dairy farmers in the European Community (EC) continued to boost milk output this summer. Since cheese prices remained under pressure, most of the increase in milk supplies went into butter-powder production. With this surge in butter production, EC intervention stocks have moved above a year ago and the EC is again planning to sell 'Christmas' butter at subsidized prices from intervention stocks. Although nonfat dry milk output has also been higher, the use of subsidies to encourage animal feed use has successfully kept intervention stocks well below the levels of the preceding 2 years.

Patterns in most other West European countries have pretty much been the reverse. Summer milk production has generally lagged behind a year ago with cheese output expanding and butter-powder production down substantially. Canadian milk output fluctuated around a year ago with cheese output being fairly strong. Meanwhile, milk production in Oceania was at its very pronounced seasonal low.

In general, those countries outside of the EC with supported dairy economies have done a fair job of bringing surpluses under control. Along with lower production in Oceania during the first half of 1978, this has helped to ease the pressure on dairy product prices in international trade. However, unless actions are taken to significantly relieve the structural imbalance in the EC, no longrun solution is in sight.

Table 15.--U.S. Dairy Situation at a Glance

Item	Unit or base period	1976	1977					1978		
		August	June	July	August	Sept.	Year	June	July	August
Production and cow numbers:										
Total milk	Mil. lb.	10,129	11,021	10,693	10,397	9,850	122,957	10,928	10,598	10,259
Milk per cow	Lb.	917	1,004	975	947	898	11,194	1,007	977	945
Number of milk cows	Thou.	11,049	10,975	10,970	10,976	10,972	10,984	10,854	10,851	10,855
Prices received by farmers:										
All milk, sold to plants, 100 pounds	Dol.	9.70	9.40	9.49	9.66	9.97	9.72	10.00	10.10	10.50
Percentage of parity 1/	Pct.	83	78	78	78	77	75	76	75	75
Manufacturing grade milk, 100 pounds	Dol.	8.89	8.56	8.56	8.64	8.84	8.70	9.23	9.26	9.58
Parity equivalent	Dol.	10.25	11.01	11.01	10.93	10.93	10.93	12.16	12.16	12.16
Fat content	Pct.	3.53	3.52	3.50	3.54	3.65	3.66	3.54	3.51	3.55
Minnesota-Wisconsin (3.5% fat), 100 pounds	Dol.	8.99	8.60	8.65	8.64	8.74	8.58	9.26	9.33	9.68
Milk eligible for fluid market, 100 pounds	Dol.	9.91	9.61	9.72	9.91	10.20	9.96	10.20	10.30	10.70
Price ratios and dairy ration values:										
Milk-feed	Lb.	1.50	1.43	1.52	1.65	1.76	1.57	1.59	1.64	1.76
Manufacturing grade milk-hog	Lb.	.21	.20	.19	.20	.22	.22	.19	.20	.20
Manufacturing grade milk-beef cattle	Lb.	.27	.25	.25	.25	.25	.25	.18	.19	.20
Value of concentrate ration fed milk cows	Dol.	6.47	6.56	6.26	5.85	5.67	6.21	6.29	6.15	5.98
Farm cash receipts from dairy products	Mil. dol.	968	1,011	1,004	993	963	11,776	1,047	1,058	1,050
Production of factory products:										
Butter	Mil. lb.	65.1	93.0	81.8	77.8	75.0	1,085.6	84.7	73.7	64.2
American cheese, whole milk	Mil. lb.	176.9	201.3	175.2	164.9	141.4	2,042.4	209.3	183.4	167.5
Cheese, other than American	Mil. lb.	106.7	114.6	104.9	110.7	110.2	1,315.5	123.6	113.6	117.1
Canned milk, unskimmed	Mil. lb.	76.0	81.9	77.9	73.4	59.7	818.9	78.8	73.8	69.0
Dry whole milk	Mil. lb.	6.5	6.3	4.3	6.5	4.7	69.4	6.9	5.9	5.5
Frozen products 2/	Mil. gal.	115.7	123.2	118.9	121.3	102.1	1,147.4	126.0	119.4	123.1
Creamed cottage cheese	Mil. lb.	74.4	77.3	74.3	77.2	73.6	877.6	77.5	73.2	77.2
Total whole milk equivalent 3/	Mil. lb.	5,350	6,369	5,757	5,613	4,937	65,879	6,295	5,687	5,323
Nonfat dry milk, human use	Mil. lb.	76.2	130.2	123.2	106.0	77.6	1,106.0	113.5	98.2	78.6
Wholesale prices:										
Butter, Grade A, Chicago, pound	Ct.	106.2	100.7	100.7	100.7	100.7	98.4	106.7	107.9	116.7
Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound	Ct.	106.2	97.4	97.1	97.1	98.3	96.8	102.6	102.9	109.1
Evaporated milk, case	Dol.	14.05	15.25	15.25	15.25	15.25	15.01	16.26	16.26	16.26
Dry whole milk, pound	Ct.	83.7	80.7	80.9	82.5	82.7	80.8	87.1	88.1	90.7
Nonfat dry milk, pound	Ct.	63.4	68.1	68.0	68.1	67.9	66.5	71.0	71.3	71.5
Dairy products and ice cream index (BLS)	1967=100	173.9	174.3	175.1	175.3	175.7	173.4	185.4	186.1	190.8
Retail prices (BLS):										
Consumer price index 4/	1967=100	171.9	181.8	182.6	183.3	184.0	181.5	195.3	196.7	197.7
All food 4/	1967=100	182.4	193.6	194.6	195.2	194.5	192.2	213.8	215.0	215.4
All dairy products 4/	1967=100	169.0	174.3	174.1	175.1	175.4	173.9	184.8	185.3	186.1
Fluid milk and cream	12/77=100	---	---	---	---	---	---	104.6	104.8	105.1
Whole milk	1967=100	159.3	162.4	161.5	162.9	162.6	162.3	171.4	171.7	172.1
Other	12/77=100	---	---	---	---	---	---	104.2	104.5	105.1
Manufactured dairy products	12/77=100	---	---	---	---	---	---	104.3	104.7	105.3
Butter	1967=100	161.7	163.9	164.0	164.4	165.4	161.8	175.8	176.5	180.7
Cheese	12/77=100	---	---	---	---	---	---	104.0	104.4	104.8
Frozen desserts	12/77=100	---	---	---	---	---	---	104.9	104.8	105.5
Other	12/77=100	---	---	---	---	---	---	103.8	105.0	105.1
Margarine	1967=100	181.5	208.7	214.3	218.5	219.2	205.6	230.1	231.8	230.9
Stocks, end of month:										
Creamery butter	Mil. lb.	82.3	197.1	209.0	208.6	203.3	---	280.9	312.7	298.6
Cheese, total 5/	Mil. lb.	518.1	587.4	603.5	608.0	569.7	---	521.8	526.8	523.2
Canned milk, unskimmed	Mil. lb.	136.5	127.7	133.2	158.8	148.6	---	101.5	120.2	134.4
Dry whole milk	Mil. lb.	11.9	9.9	9.0	6.5	6.3	---	9.5	9.4	9.3
Total whole milk equivalent 6/	Mil. lb.	6,993	9,992	10,401	10,475	9,972	---	11,004	11,752	11,468
Nonfat dry milk	Mil. lb.	512.5	580.8	613.2	653.4	679.0	---	701.6	713.6	701.7
Commercial disappearance:										
Creamery butter	Mil. lb.	64.0	44.8	71.6	72.8	89.1	859.8	76.2	72.0	73.9
Cheese, American	Mil. lb.	167.6	162.9	154.3	151.0	180.8	1,958.1	163.5	168.5	171.3
Cheese, other than American	Mil. lb.	122.5	125.5	120.5	127.8	128.9	1,512.3	129.3	130.6	141.2
Canned milk, unskimmed	Mil. lb.	81.4	55.2	70.2	45.3	68.2	799.2	55.7	53.1	53.3
Milk in all products	Mil. lb.	9,910	9,451	10,150	10,015	10,477	116,398	10,099	10,284	10,427
Nonfat dry milk	Mil. lb.	68.0	42.9	62.0	56.4	67.2	681.6	51.8	52.0	80.2
USDA net removals:										
Butter	Mil. lb.	---	35.1	16.0	13.3	---	221.8	20.6	*	-6.0
Cheddar cheese	Mil. lb.	---	23.1	16.8	24.0	2.9	148.2	13.6	13.6	3.5
Nonfat dry milk	Mil. lb.	10.6	78.2	67.8	62.7	36.8	461.7	54.0	46.3	18.8
Evaporated milk	Mil. lb.	1.5	.6	2.2	2.7	1.6	15.9	1.1	1.9	1.5
Total whole milk equivalent	Mil. lb.	3	954	501	518	32	6,080	562	138	-86
Fluid sales, change from year earlier: 7/										
Whole milk	Pct.	-3.2	-1.7	-3.0	-2.3	-2.4	-3.5	-2.1	-2.4	-2.9
Low-fat and skim milk	Pct.	+6.5	+7.4	+6.4	+7.1	+7.7	+7.0	+1.7	+3.0	+3.4
Total fluid milk	Pct.	-.1	+1.6	+.1	+1.0	+1.2	-.1	-.5	-.5	-.7
Cream and cream mixtures	Pct.	+4.2	-1.5	-7.0	+3.0	-.8	+1.6	-2.2	-2.3	N.A.

1/ Seasonally adjusted price as percentage of parity price.
2/ Ice cream, ice milk, and sherbet.
3/ Includes manufactured products for which current monthly series are available.
4/ For all urban consumers starting January 1978.
5/ Natural, plus process American cheese held by CCC.
6/ Excludes cream and bulk condensed milk.
7/ Daily average sales in Federal and State Marketing areas.

* Less than 50,000 pounds
NA = Not Available.

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